

Dementia with Lewy Bodies

**American Academy of
Neurology**

John Hart, Jr., M.D.

Dementia with Lewy Bodies

- **Definition: clinically defined by the presence of dementia, prominent hallucinations and delusions (yet sensitive to antipsychotic medications), fluctuations in alertness, and gait/balance disorder** (McKeith et al., Neurology 1996;47:1113-1124)
- **Accounts for up to 20-30% of degenerative dementias** (Hansen et al., Neurology 1990;40:1-8)
 - **Second in occurrence behind AD**

Dementia with Lewy Bodies

- Autopsy shows 15-36% of demented cases presenting for autopsy have Lewy Bodies (LB) in neocortex and brainstem
 - Most also AD changes
 - Typically include pure dementia cases with cortical Lewy Bodies and those those with AD+LB under Dementia with Lewy Bodies

Dementia with Lewy Bodies



Demographics

- **Age of onset comparable to AD**
- **Males more susceptible (1.5:1) and have worse prognosis**
- **Duration may be rapid (1-5 years) or typical to AD in other cases**

Dementia with Lewy Bodies

- **Established clinical consensus criteria**
(McKeith et al., Neurology 1996;47:1113-1124)
- **Dementia (DSM-IV) where prominent or persistent memory impairments may not necessarily occur in the early stages but occurs with progression. Attention, frontal-subcortical, and visuospatial skills may be prominent**

Dementia with Lewy Bodies

- Has two of the following core features for probable and one for possible DLB
 - Fluctuating cognition with pronounced variations in attention and alertness
 - Occurs in 80-90% of DLB, only 20% of AD
 - Recurrent visual hallucinations that are typically well formed and detailed
 - Spontaneous motor features of parkinsonism

Dementia with Lewy Bodies

- **Features supportive of the diagnosis are:**
 - **Repeated falls**
 - **Syncope**
 - **Transient loss of consciousness**
 - **Neuroleptic sensitivity**
 - **Systematized delusions**
 - **Hallucinations in other modalities**

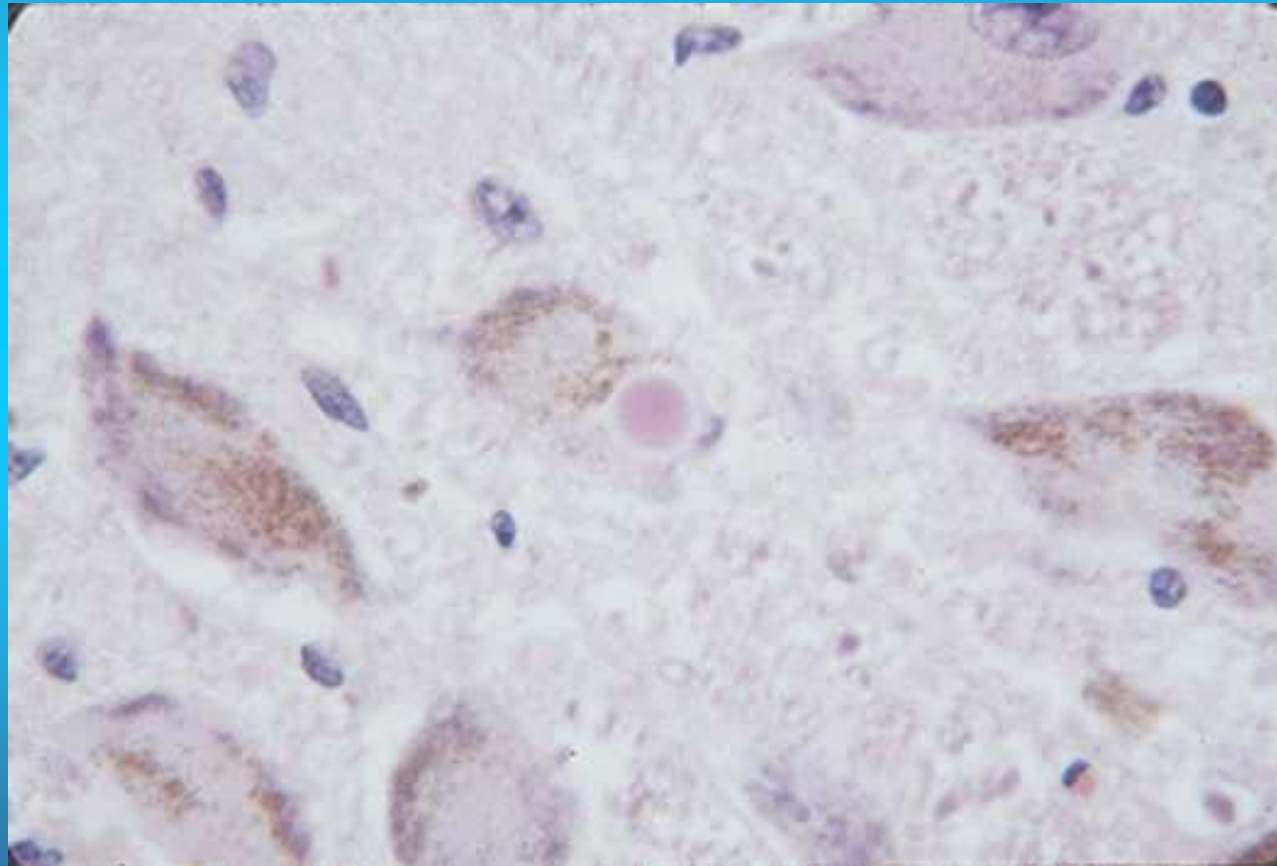
Dementia with Lewy Bodies

- **Neuropsychology:**
 - Impaired visuoconstructional skills and attention with relative sparing of memory
- **Imaging:**
 - MRI shows DLB patients with hippocampal volume between those of normal controls and AD patients (Hashimoto et al., Neurology 1998;51:357-362)
 - More hypoperfusion in the occipital lobes than AD (Knopman et al., Neurology 2001;56:1143-1153)

Pathology

- **Lewy bodies in the cortex and brainstem**
 - **Subcortical nuclei, limbic cortex, neocortex (temporal > frontal = parietal)**
- **May have beta amyloid deposition and plaques like AD, but few neurofibrillary tangles**

Dementia with Lewy Bodies



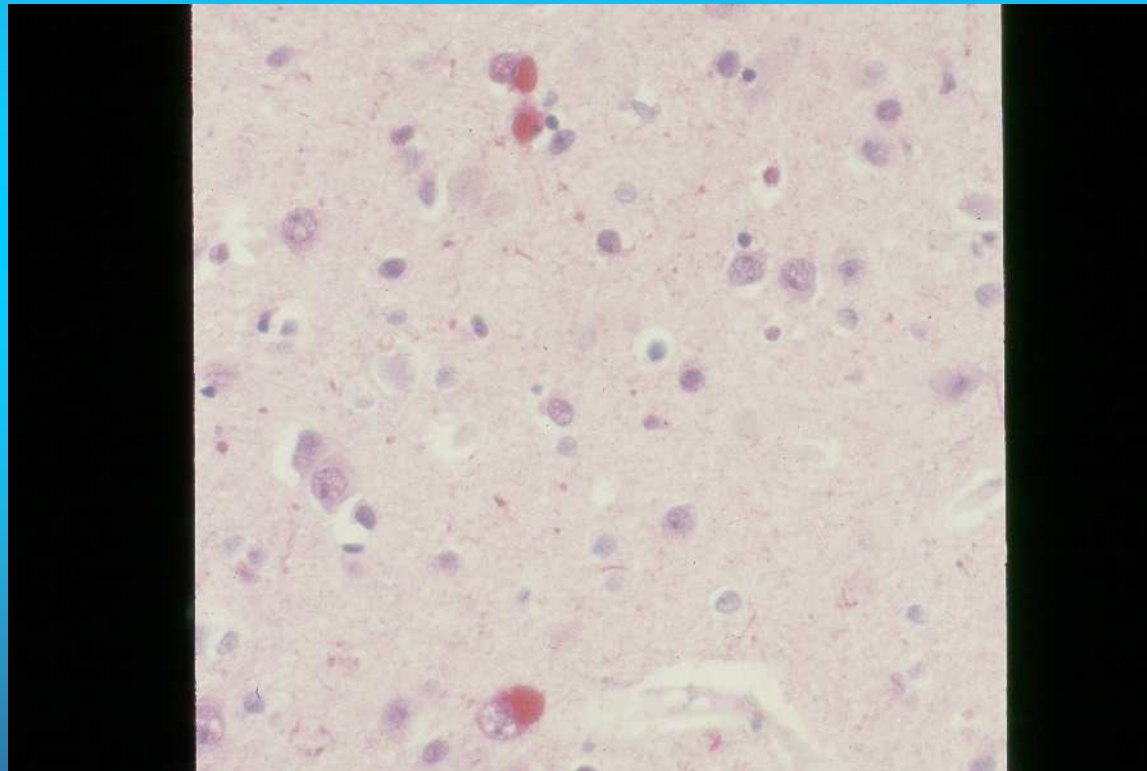
Dementia with Lewy Bodies

- Term is conventionally used in clinical and pathological diagnoses
- No other specific code captures the clinical or pathological spectrum
- General dementia or AD diagnosis (290 or 331) ignores established criteria, allows no tracking of DLB, and is the 2nd largest etiology of neurodegenerative dementias

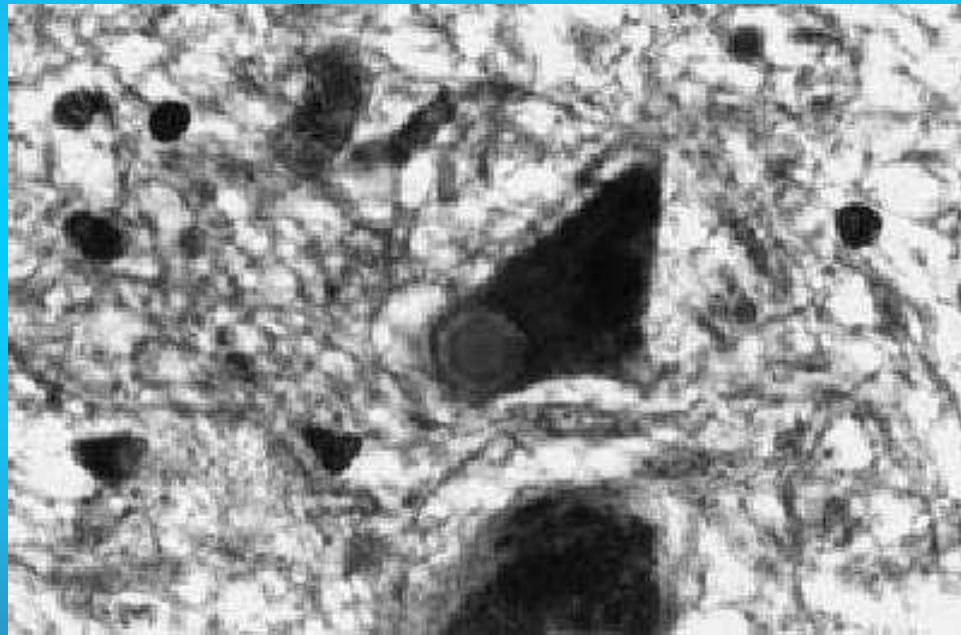
Dementia with Lewy Bodies

- Differs from the other codes including AD, Parkinson's disease and dementia
- AD → early hallucinations, fluctuation in alertness, sensitivity to neuroleptics are important to differentiate
- Parkinson's disease and dementia → the dementia with PD is subcortical with different symptoms

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